SCHOOL DESEGREGATION AND POLITICAL PREFERENCES: LONG-RUN EVIDENCE FROM KENTUCKY

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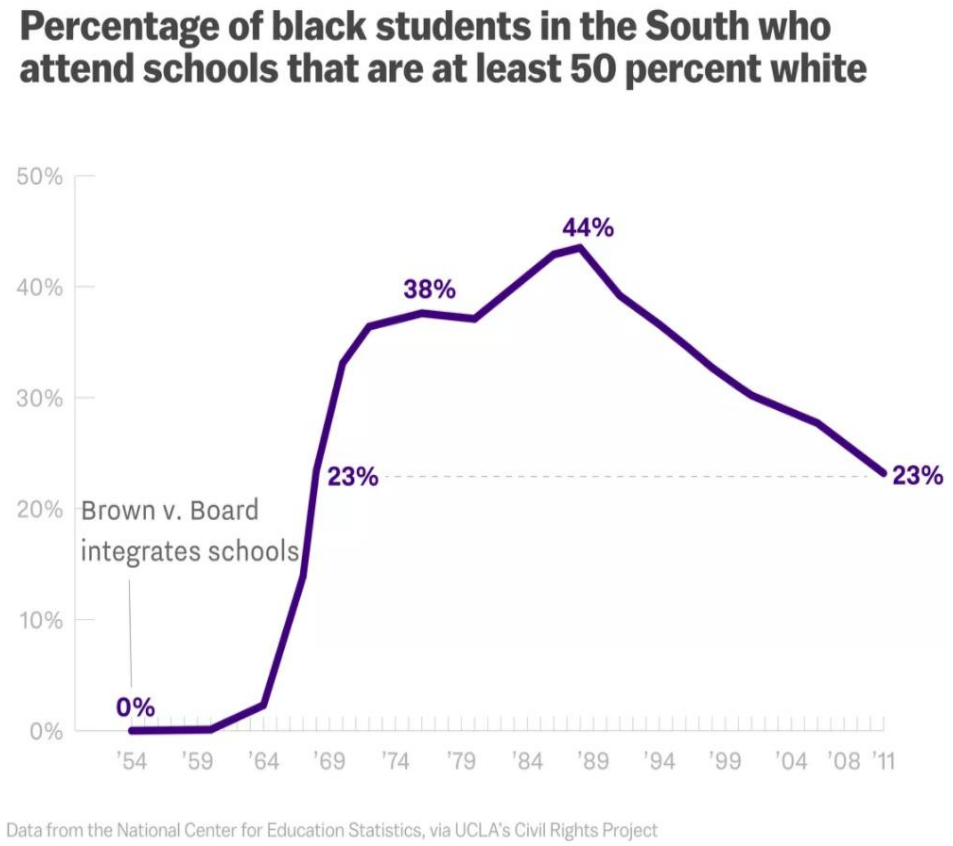
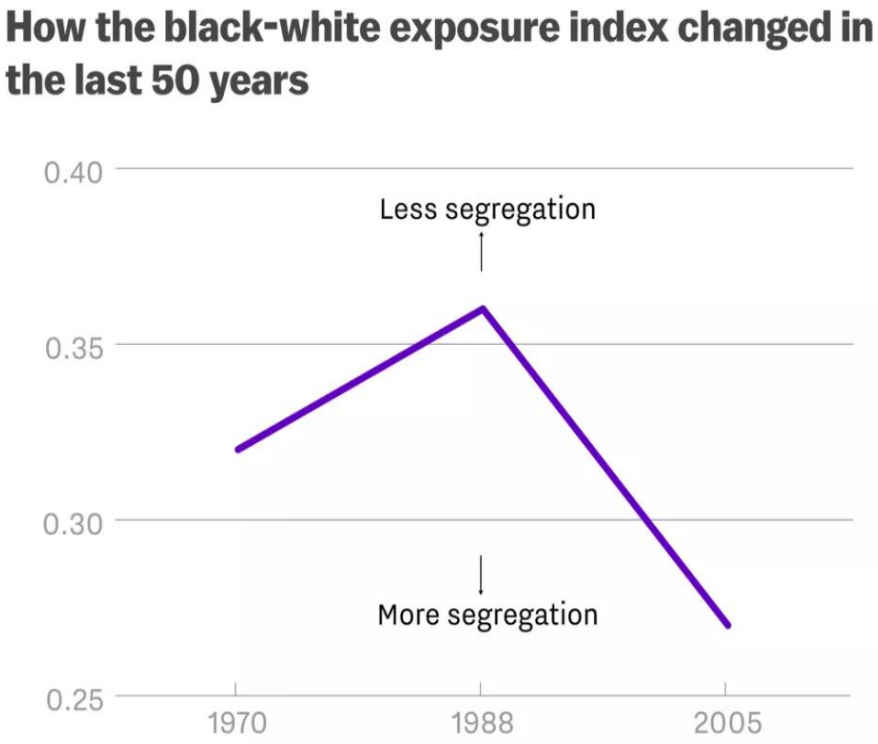
SCHOOL DESEGREGATION IN THE U.S.

- *Brown v. Board* and *Brown II* in 1954-55 ended *de jure* segregation of public schools.
  - but did not establish mechanisms for actively integrating schools

- Civil Rights Act in 1964 & two cases—*Green v. New Kent* in 1968 and *Swann v. Charlotte-Mecklenburg* in 1971—set off wave of court-ordered desegregation.
  - court orders decreased segregation, despite 'white flight' (Guryan 2004; Reber 2005)

RE-SEGREGATION IN THE US





Source: Vox (2018)

MOTIVATION

- Much work on the economic effects of school de- and re-segregation.
  - Desegregation had positive effects on black children with little to no neg. impact on whites (e.g., Guryan 2004; Reber 2009; Bergman 2018)
  - Re-segregation appears to be harmful for economic outcomes of black students (e.g., Lutz 2011; Billings et al. 2014; Cook 2016).

- We know very little about effects on social and political outcomes, such as racial attitudes, social preferences, ideology, party ID.
  - notable exception: Billings et al. 2020
  - 'contact hypothesis' vs. 'backlash' and 'racial threat'
  - Realignment & Southern whites' exodus from the Democratic Party

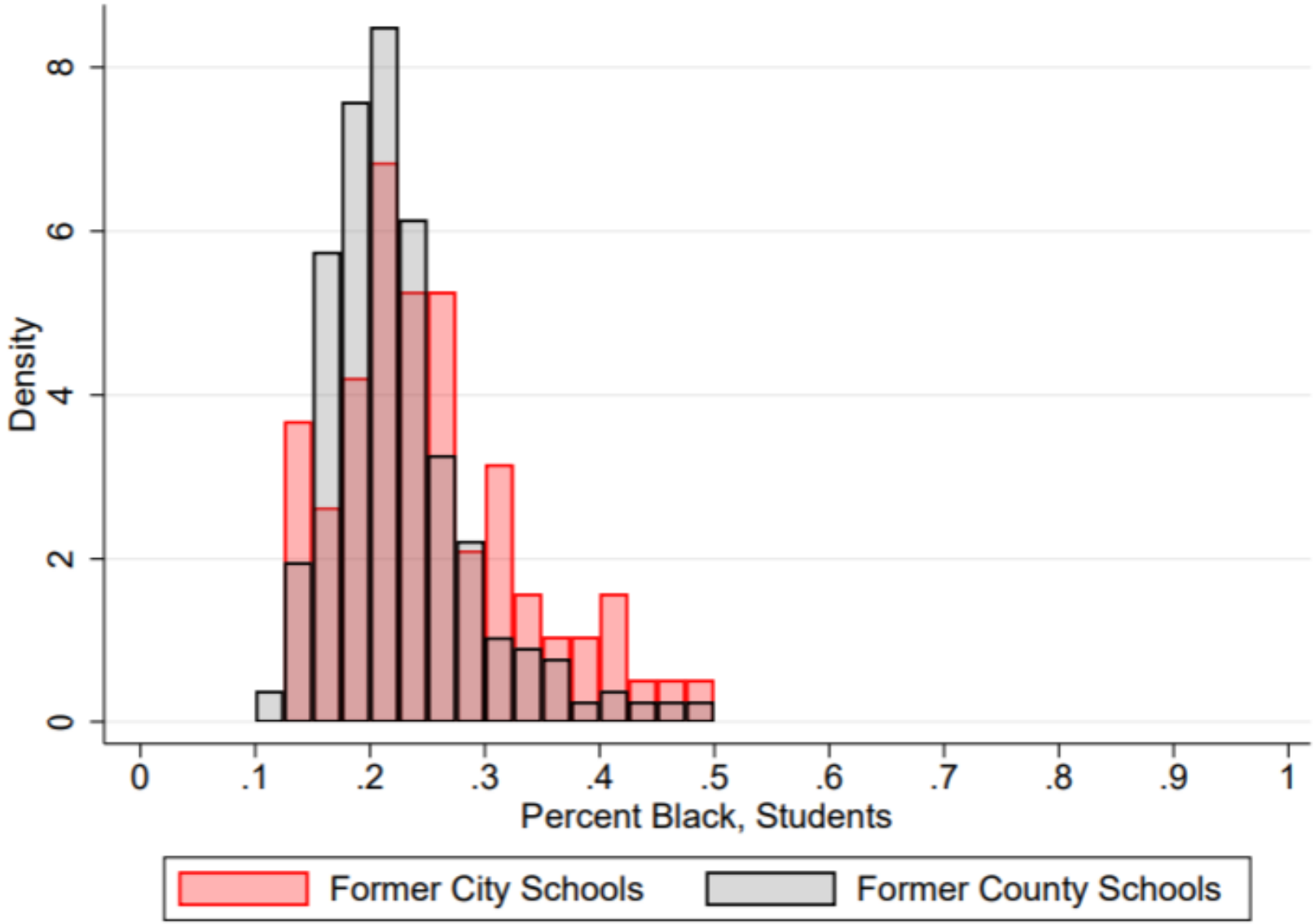
THIS PAPER

Builds on the "Louisville natural experiment" analyzed in Tuttle (2019).

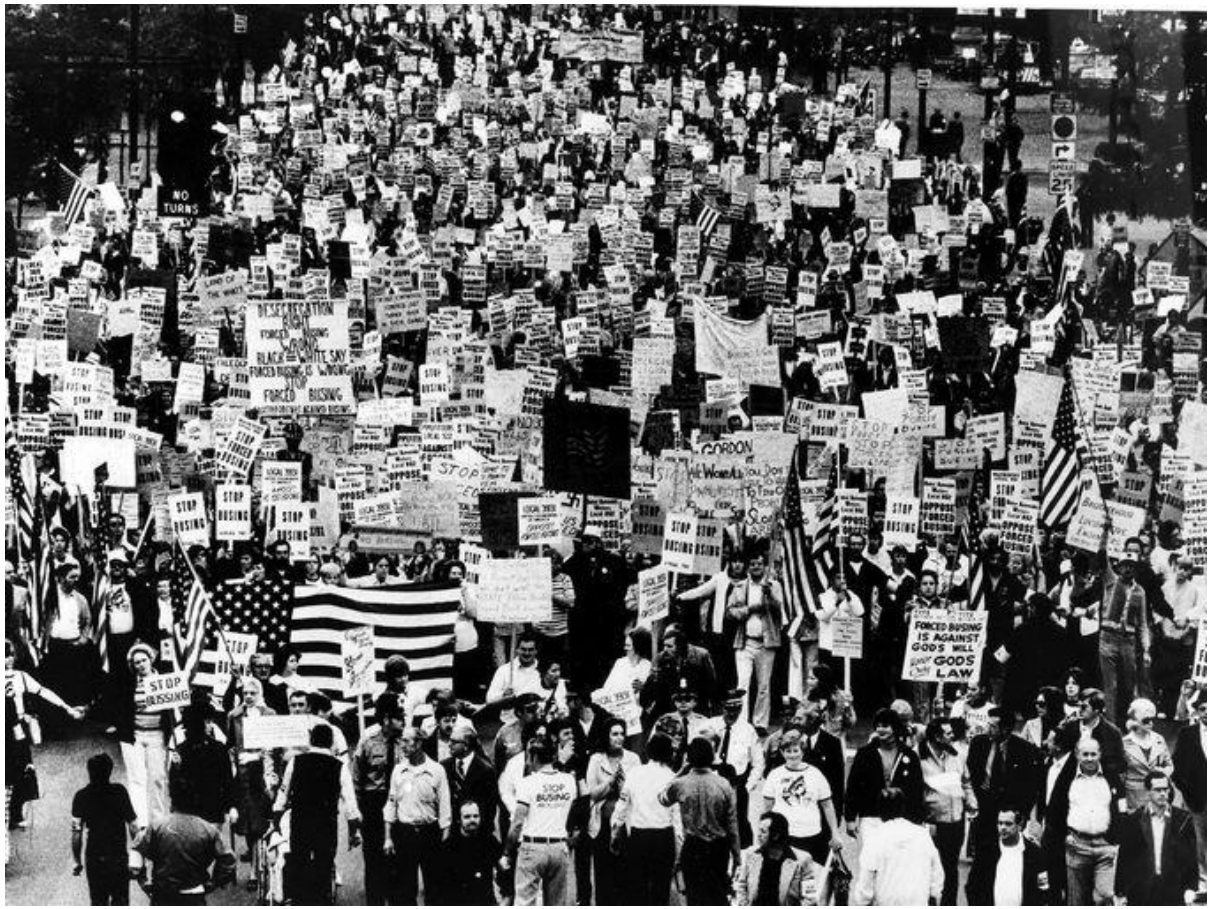
- **Setting:** Court-ordered desegregation program in Jefferson County, KY (pop. = 760k) in 1975.
  - Louisville and Jefferson County school districts forced to merge and integrate schools
  - Prior to '75, 80% of white kids attended >90%-white schools; 76% of black children attended >90%-black schools
  - Court-designed integration plans assigned students to be bussed based on first letter of last name
    - after merger, racial composition of student body in City and County schools was nearly equalized
- **Research design:** Diff-in-Diff

- Tuttle (2019) finds busing assignment has positive long-run economic effects for black men and no measurable economic effects for white men.
  - e.g., as adults, black men live in neighborhoods with higher avg. income
- Here, we are interested in the effect on social and political preferences
  - Partisanship, voter turnout, voter registration, political contributions, interracial marriage, political positions

DIFFERENCES IN STUDENT COMPOSITION, POST-1975



OPPOSITION TO BUSING IN JEFFERSON COUNTY



Source: The Courier-Journal, 2014, "Historic Louisville Busing Photos"

Poll at the time suggest 98% of white suburban residents in Jefferson County opposed busing.

RESEARCH DESIGN

SCHOOL DESEGREGATION IN JEFFERSON COUNTY, KY

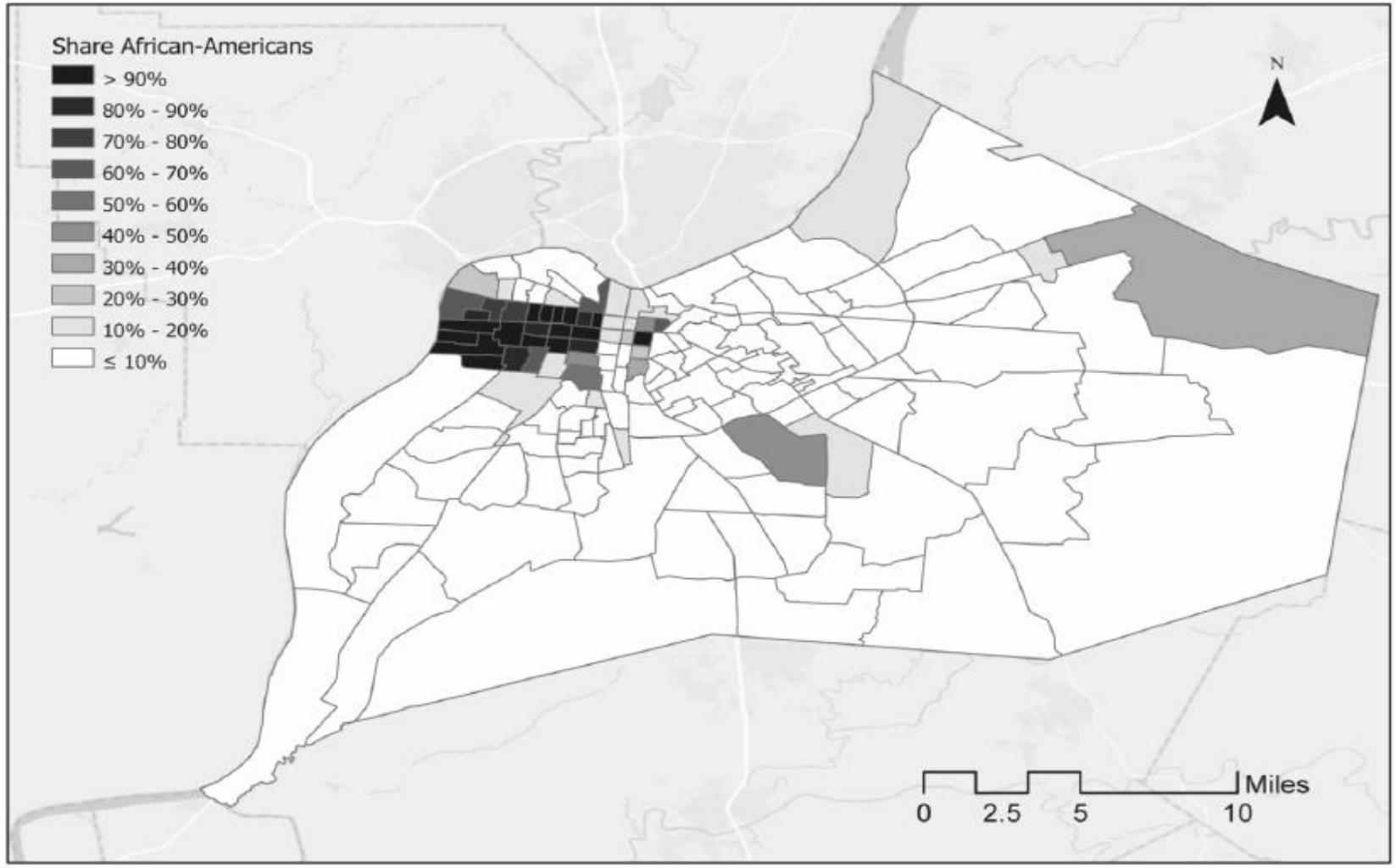
- In 1974, court ordered Jefferson County Schools (JCPS) to desegregate by merging with Louisville City Schools (LCS). Schools were integrated in 1975.

- Some black students from City schools were bused to County schools and some white students from County schools were bused to City schools.

- Not all students were bused in the same grade. The grades in which a student was assigned busing were based on race + first letter of last name.

SCHOOL LOCATIONS IN JEFFERSON COUNTY

Figure 1: Residential Segregation in Jefferson County, 1970



Notes: Figure shows the share of African-Americans as of the 1970 Decennial Census for each

BUSING ASSIGNMENT IN JEFFERSON COUNTY: "THE ALPHABET PLAN"

How to tell when your child will be bused . . .

If child's last name begins with letters:	White child will be bused in grades:	Black child will be bused in grades:
A, B, F, Q	11, 12	2, 3, 7, 8, 9, 10, 11, 12
G, H, L	2, 7	2, 3, 7, 8, 9, 10, 11, 12
C, P, R, X	3, 8	2, 3, 4, 5, 6, 7, 8, 9
M, O, T, U, V, Y	4, 9	2, 3, 4, 5, 6, 10, 11, 12
D, E, N, W, Z	5, 10	4, 5, 6, 7, 8, 9, 10, 11, 12
I, J, K, S	6	4, 5, 6, 7, 8, 9, 10, 11, 12

Source: The Courier-Journal; July 31, 1975

TREATMENT ASSIGNMENT

Table 3: Bused Alphabet Groups, by Cohort

	Graduating Cohort			
Alphabet Group	1974	1975	1976	1977
A, B, F, Q	Not Bused		Bused	
G, H, L				
C, P, R, X				
M, O, T, U, V, Y				
D, E, N, W, Z				
I, J, K, S				

Notes: Table shows whether or not white children in a particular cohort and alphabet group were assigned to be bused to a formerly black school for at least one year. Black fields indicate assignment to busing, gray ones imply that the respective set of students was not bused.

DATA & METHODS

DATA

- Yearbook data:
  - Digitize yearbooks for 15/19 high schools subject to the plan.
  - Use pre-1975 yearbooks when it was still uncertain if/when schools would desegregate.
  - Variables: student name, grade, perceived race and gender based on yearbook picture

- Voter data:
  - Aristotle Inc. data on voter registration, political donations, & other misc. (e.g. home address).
  - Voter registration records include turnout history and party ID.

“FIRST STAGE”

11th Grade in a 1975-76 Yearbook

NOTES ON OUR SAMPLE

- Why limit the sample to men?

- Why limit the sample to white men?

MATCHING YEARBOOKS + VOTER REGISTRATION DATA

- We begin with 8,900 white men from the digitized high school yearbooks.

- Using name + approximate year of birth, Aristotle finds at least one match for about 70%.

- We then filter that down to 'unique' matches by using KY birth records:
  - If Aristotle only yields one match → unique.
  - If Aristotle yields multiple but only one matches DOB or year-month of birth in KY → unique.
  - If Aristotle yields multiple & multiple DOB matches but only one is born in Jefferson County → unique.

- 52.7% of post-desegregation sample has a unique match.
  - 52.2% for not assigned busing and 54.4% for assigned busing—no or small registration effect.

SUMMARY STATISTICS

Variable	N	Mean	SD
Treatment:			
Bused	5,018	0.133	0.339
State of Residence:			
Kentucky	5,018	0.491	0.500
Closed Primary State	5,018	0.731	0.443
Party Registration:			
Republican	5,018	0.337	0.473
Democrat	5,018	0.297	0.457
Independent or Other	5,018	0.366	0.482
Political Participation:			
Voted in 2018	5,018	0.718	0.450
Voted in 2016	5,018	0.789	0.408
Voted in 2014	5,018	0.620	0.486
Voted in 2012	5,018	0.744	0.436
Voted in 2010	5,018	0.624	0.485
Voted in 2008	5,018	0.727	0.445
Donations to Advocacy Groups:			
Pro-Life	5,018	0.013	0.111
Anti Same-Sex Marriage	5,018	0.011	0.106
Anti ACA	5,018	0.011	0.103
Pro Gun Control	5,018	0.012	0.110

METHODS

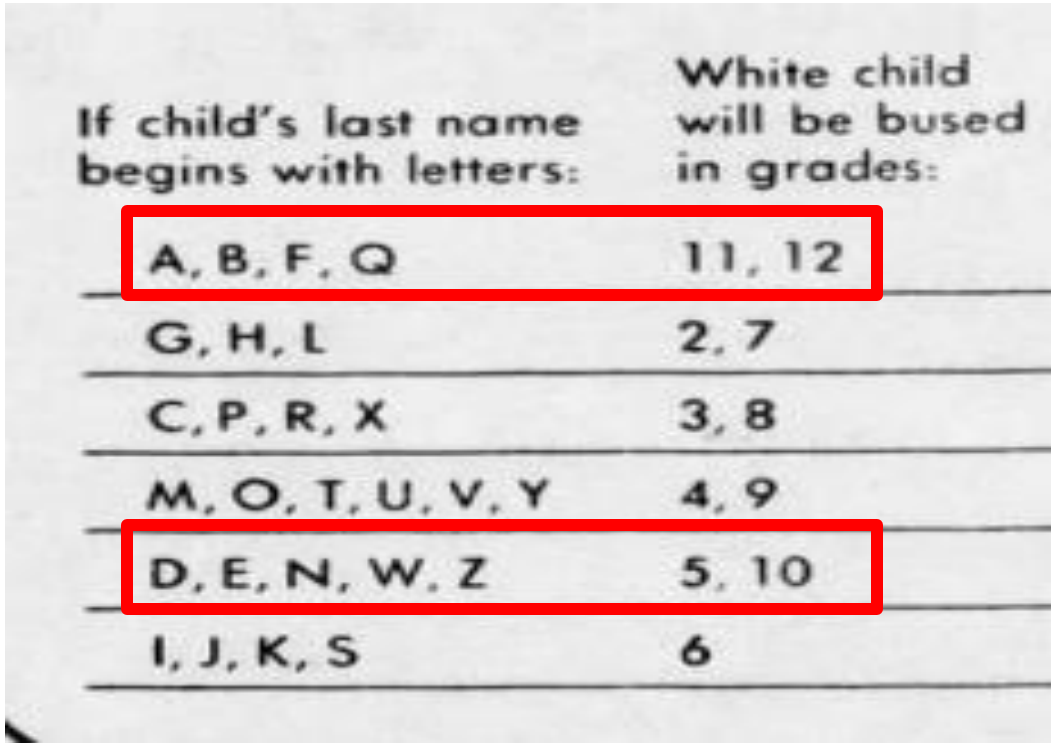
We estimate:

$$Y_{i,a,c} = \beta AssignedBusing_{a,c} + \mu_a + \delta_c + \epsilon_{i,a,c}$$

- $Y_{i,a,c}$ = outcome of interest for individual i, in graduating cohort c, and alphabet group a.
- $AssignedBusing_{a,c}$ = 1 if student assigned busing; = 0 if not.
- μ_a= alphabet group fixed effects.
- δ_c= expected graduating cohort fixed effects.

RANDOMIZATION INFERENCE

- Using the sample of students in high school (9-12 grades) in 1974, we have variation in two groups…
- Thought exercise: what if Judge Gordon had drawn up the plan differently and said "G,H,L" should be (11,12) and "A,B,F,Q" should be (2,7)?
- There are 30 permutations like that.
- If the design is valid, our 'true' estimate should be "large" relative to placebo estimates from the permutations.



If child's last name begins with letters:	White child will be bused in grades:
A, B, F, Q	11, 12
G, H, L	2, 7
C, P, R, X	3, 8
M, O, T, U, V, Y	4, 9
D, E, N, W, Z	5, 10
I, J, K, S	6

RESULTS

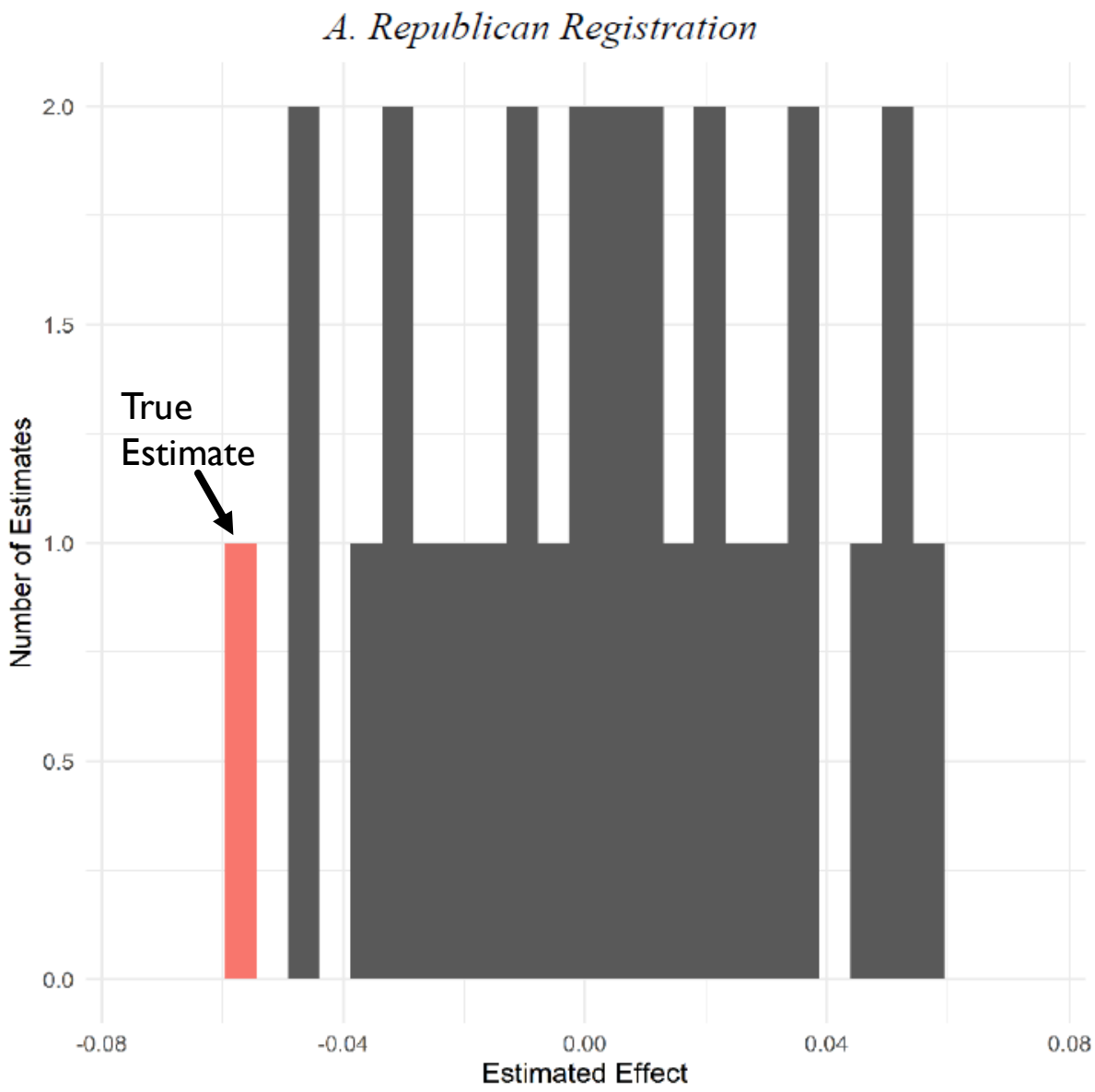
EFFECT OF BUSING ASSIGNMENT ON PARTY REGISTRATION

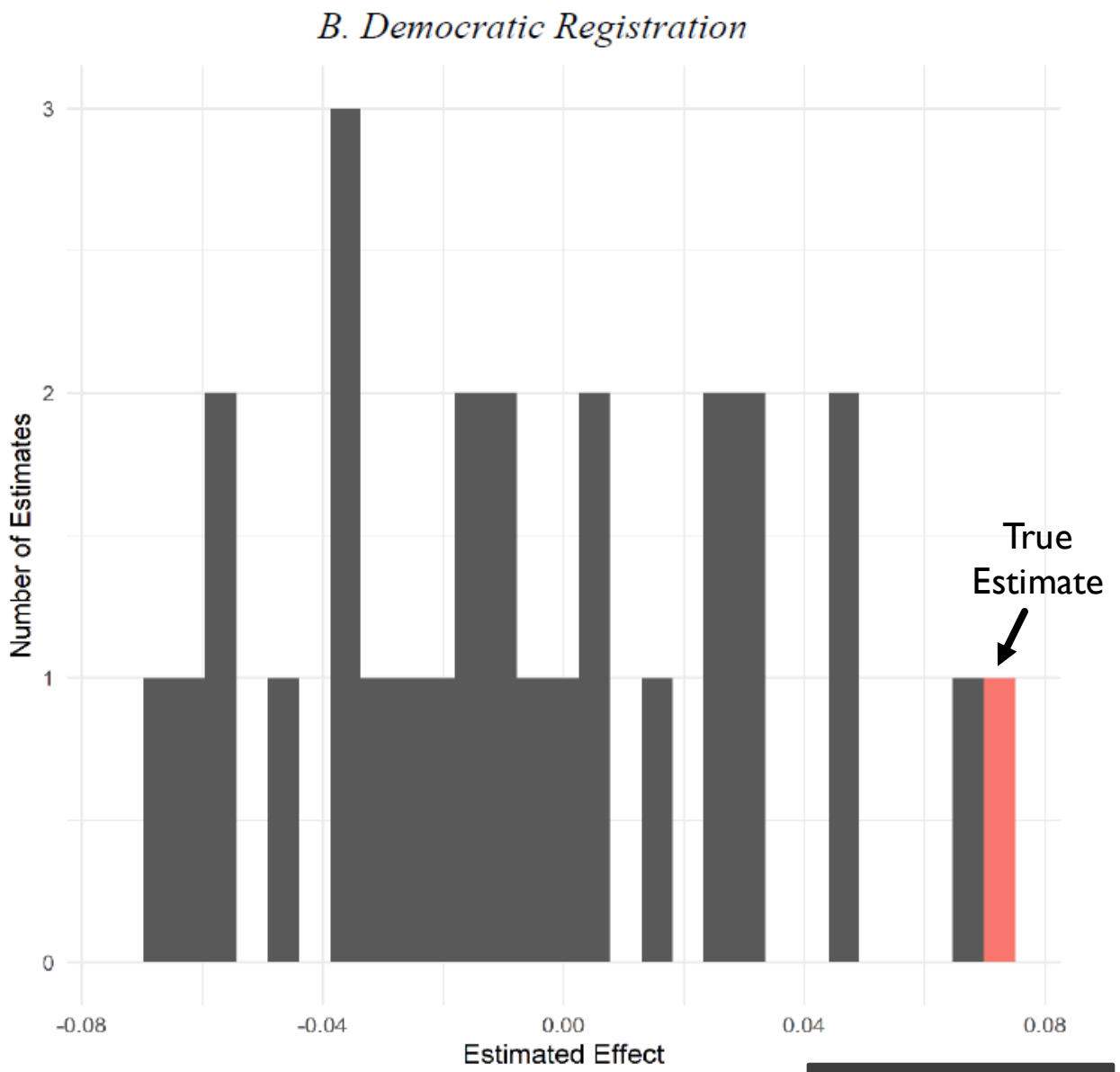
	Registered Republican		Registered Democrat		Neither	
	(1)	(2)	(3)	(4)	(5)	(6)
Bused	-0.0589***	-0.0548**	0.0368**	0.0726***	0.0221	-0.0178
	(0.0191)	(0.0236)	(0.0164)	(0.0245)	(0.0136)	(0.0180)
Fixed Effects:						
Cohort	Yes	Yes	Yes	Yes	Yes	Yes
Alphabet Group	Yes	Yes	Yes	Yes	Yes	Yes
Mean of Dep. Var.	0.337	0.461	0.297	0.406	0.366	0.134
Sample	All States	Affiliation States	All States	Affiliation States	All States	Affiliation States
R-Squared	0.002	0.022	0.002	0.042	0.002	0.100
Number of Observations	5,018	3,670	5,018	3,670	5,018	3,670

Notes: Std. errors clustered at cohort-by-alphabet-group level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Intensity Placebo Persuasion

MAIN EFFECTS W/ RANDOMIZATION INFERENCE





Notes: Figures plot histograms of coefficients from 30 placebo regressions.

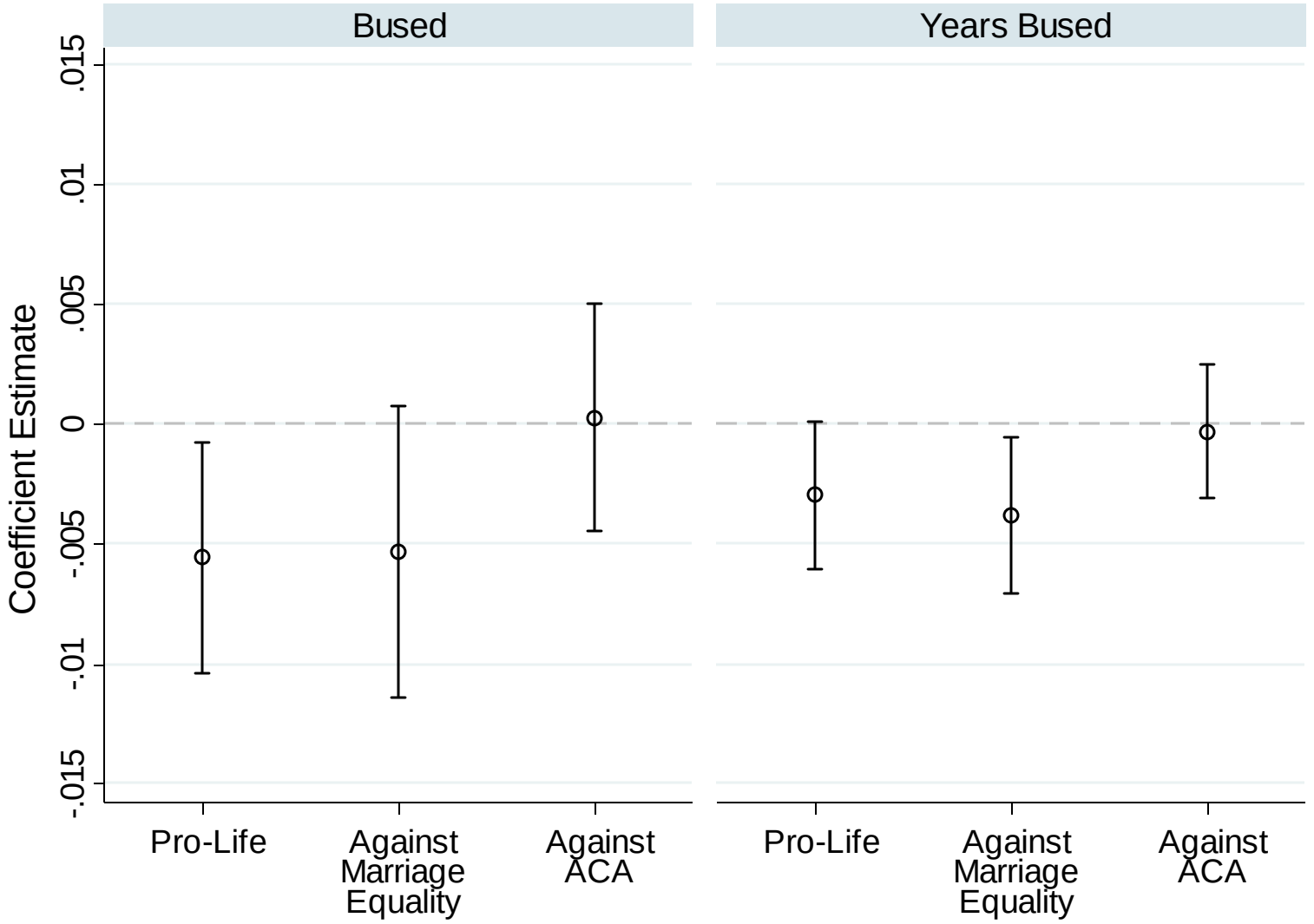
Supp. Figures

INTENSITY OF TREATMENT

	Registered Republican		Registered Democrat	
	(1)	(2)	(3)	(4)
Bused for 1 Year (β_1)	-0.0269	-0.0173	0.0031	0.0207
	(0.0232)	(0.0271)	(0.0168)	(0.0266)
Bused for 2 Years (β_2)	-0.0821***	-0.0821***	0.0613***	0.1102***
	(0.0185)	(0.0176)	(0.0104)	(0.0166)
Hypothesis Tests [p -value]:				
$\beta_1 = \beta_2 = 0$	0.000	0.000	0.000	0.000
$\beta_1 = \beta_2$	0.062	0.036	0.000	0.001
Fixed Effects:				
Cohort	Yes	Yes	Yes	Yes
Alphabet Group	Yes	Yes	Yes	Yes
Mean of Dep. Var.	0.337	0.461	0.297	0.406
Sample	All States	Affiliation States	All States	Affiliation States
R-Squared	0.003	0.002	0.002	0.004
Number of Observations	5,018	3,670	5,018	3,670

Notes: Std. errors clustered at cohort-by-alphabet-group level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

EFFECT OF BUSING ASSIGNMENT ON POLITICAL DONATIONS



Notes: Std. errors clustered at cohort-by-alphabet-group level. Each column presents an estimate from a separate regression.

NO EFFECT ON TURNOUT IN ELECTIONS FROM '08-'18

	Vote in General	Vote in Presidential	Vote in Midterm
	(1)	(2)	(3)
Bused	-0.0001	0.0066	-0.0068
	(0.0221)	(0.0185)	(0.0271)
Fixed Effects:			
Cohort	Yes	Yes	Yes
Alphabet Group	Yes	Yes	Yes
Mean of Dep. Var.	0.704	0.753	0.654
Elections in Sample	'18, '16, '14, '12, '10, '08	'16, '12, '08	'18, '14, '10
R-Squared	0.007	0.006	0.008
Number of Observations	30,108	15,054	15,054

Notes: Std. errors clustered at cohort-by-alphabet-group level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

NO EFFECT ON NEIGHBORHOOD COMPOSITION

	Share Black in Tract, as of 2010		Share Hispanic in Tract, as of 2010	
	(1)	(2)	(3)	(4)
Bused	-0.0057		0.0004	
	(0.0045)		(0.0030)	
Years Bused		-0.0021		0.0010
		(0.0026)		(0.0017)
Fixed Effects:				
Cohort	Yes	Yes	Yes	Yes
Alphabet Group	Yes	Yes	Yes	Yes
Mean of Dep. Var.	0.095	0.095	0.067	0.067
Number of Observations	4,748	4,748	4,748	4,748

Notes: Std. errors clustered at cohort-by-alphabet-group level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

NO EFFECT ON INTERRACIAL MARRIAGE

	Spouse is Black (Inferred)		Spouse is Black		Spouse is Hispanic (Inferred)		Spouse is Hispanic	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bused	0.0032		0.0184		-0.0000		0.0075	
	(0.0091)		(0.0314)		(0.0011)		(0.0071)	
Years Bused		0.0011		-0.0027		0.0003		0.0042
		(0.0062)		(0.0159)		(0.0005)		(0.0042)
Fixed Effects:								
Cohort	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alphabet Group	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean of Dep. Var.	0.023	0.023	0.031	0.031	0.001	0.001	0.002	0.002
Number of Observations	3,230	3,230	417	417	3,158	3,158	405	405

Notes: Std. errors clustered at cohort-by-alphabet-group level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

OPEN QUESTIONS & NEXT STEPS

WHY MIGHT WE SEE SOCIAL/POLITICAL EFFECTS FOR WHITE STUDENTS?

- If racial composition of students is nearly equalized, why would being bused to a City school affect partisanship or attitudes?
  - Racial composition of teachers: share black about three times higher in City schools.
    - Modified contact hypothesis
    - Curriculum differences
  - Racial composition & other characteristics of neighborhoods where schools are located: e.g., poverty rate is three times higher in City school tracts.
  - White students bused to City schools experience differences in school facilities, other resources, etc.
  - Possible 'racial threat' of black students entering County schools makes forming friendships less likely in County schools; suggestive evidence from yearbooks that extracurriculars are more integrated in City.
  - **Probably Not**: City schools are *somewhat* higher in terms of share of black students (27.4% vs. 25.1%).

CONCLUSION

- Many people today were exposed to government interventions to integrate schools.
- School segregation continues to be an important issue in the US educational system.

- For the Louisville natural experiment, we find busing assignment to a City school has long-run effects on party registration and political donations of white men.

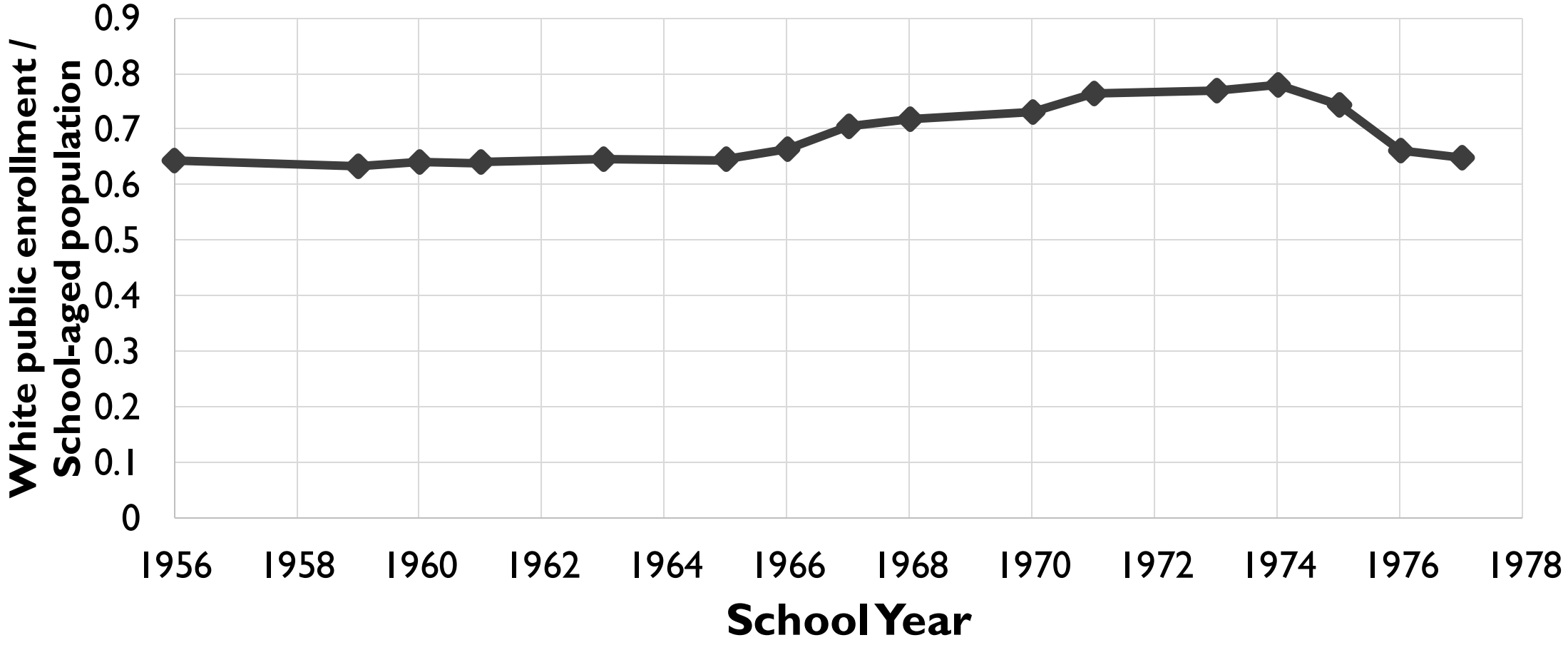
- Speaks broadly to 'contact hypothesis' vs 'racial threat.'
- Consistent with idea that exposure to black teachers, black neighborhoods, or more knowledge of black experiences, in general, may shape attitudes.

- Relevant to rise in racial politics in recent years in the U.S. and in other countries

THANKS!

(EXTRA SLIDES)

WHITE PUBLIC SCHOOL ENROLLMENT AS SHARE OF BIRTH COHORT



- White enrollment falls from 77.8% in 1974 to 74% in 1975 and 66.2% in 1977

  → about 15% of white students left from 74-77

INTERPRETING RESULTS

- **White flight:** as long as switching to a private school or to a white, neighboring district doesn't make someone *more* likely to register as Democrat than attending their assigned City school… then ITT should be a lower bound on the ATE.

- **Realignment:** until 1940s Democratic Party had stronghold in the South and was associated with white supremacist ideals. Eventually, party's stance on racial equality shifted and Democrats advanced the Civil Rights Act of 1964 and Voting Rights Act of 1965. Racially conservative whites defected from Democratic Party from 60s onward (e.g., Kuziemko & Washington 2018)

INTERRACIAL MARRIAGE AND NEIGHBORHOOD COMPOSITION

- Share black and share Hispanic in tract of residence on voter file.

- Race of the person that we identify as a possible spouse based on voter file.

PLANNED SURVEY ON ATTITUDES

- Questions broadly classified in 4 areas, aiming to measure: partisanship and voting, trust in government, attitudes about inequality & redistribution, and attitudes about race.

- Questions to understand mechanisms: race of peer group, race of teachers.

- Real-stakes question, without naming organizations, ask them to authorize a donation to:
  - a non-profit in support of racial justice
  - a non-profit in support of police
  - or no donation.

JEFFERSON COUNTY AND MILLIKEN V. BRADLEY

- *Milliken v. Bradley* established that courts could not order desegregation across district lines unless it could be shown that those lines were drawn with the intention of keeping schools segregated.

- The decision in Jefferson County was remanded to the Sixth Circuit in light of *Milliken*. The Sixth Circuit court decided that a metropolitan desegregation order was appropriate in the case.

- Largely due to two factors:
  - The County was deliberately segregating the few black students who attended its schools pre-1975.
  - The basic unit of education in KY is the county and the districts were both contained within the county.

NEXT STEPS

- Collecting more yearbook data to expand time series backward in time.
  + collect few high schools exempt from plan because they were already deemed integrated.
  + collect missing yearbooks from City schools (in JCPS archives).
  + collect yearbooks that include 7-9 grade (in JCPS archives).

- Use KY birth and marriage records to expand sample to include women.

- Survey contemporary attitudes on: race, redistribution, etc.

PERSISTENT DIFFERENCES IN F-LCS AND F-JCPS

- Pre-1975, spending in JCPS about 10% higher than spending in LCS.

- Only district-level spending data post-75 so can't directly explore F-JCPS and F-LCS spending differences.

- Several points suggest F-LCS and F-JCPS continued to differ in terms of resources.
  - Facilities:
    - Pre-75 capital investments in JCPS were 94% higher than LCS capital investments, since facilities are a 'stock' it's difficult to equalize on that margin post-75.
    - Also, School Superintendents Survey shows no major capital spending in 75-76 year.
  - Parent-Teacher Associations:
    - Anecdotal evidence suggests less PTA spending and work in former City schools. A teacher at the time says, "PTA was hard to come by. They didn't want to do anything, not in the city schools." (K'meyer 2013).
  - Continued on next slide…

FORMER CITY VS. FORMER COUNTY SCHOOLS, POST-1975

- Several points suggest F-LCS and F-JCPS continued to differ in terms of resources.
  - Staffing:
    - Yearbooks show: fewer teachers with Masters degrees in former City schools (consistent with labor supply responses in Jackson 2009).
  - Programs offered:
    - Former City schools less likely to have gifted & talented programs (from Office of Civil Rights data).
  - Outcomes (a function of school resource inputs & student body):
    - Dropout and court referral rates both higher in former City schools (OCR data).
  - School neighborhoods:
    - Schools were located in poorer neighborhoods, neighborhoods where buildings are less likely to have AC or central heating, and neighborhoods that have higher pollution/crime (based on recent numbers).

- Many differences but schools were roughly equal in terms of racial integration.

DIFFERENCES IN STUDENT OUTCOMES, POST-1975

	Dropouts	Black Dropouts	White Dropouts	Court Referrals	Black Court Referrals	White Court Referrals
Former City School	0.0100***	0.0179*	0.00862***	0.000602*	0.00166	0.000216
	(0.00339)	(0.00961)	(0.00322)	(0.000338)	(0.00106)	(0.000178)
Constant	0.0123	0.0359	0.00712	-0.000142	-0.000902	-0.000128
	(0.00850)	(0.0239)	(0.00716)	(0.000336)	(0.00117)	(0.000159)
Years Included	'76	'76	'76	'76	'76	'76
Observations	75	75	75	74	74	74
R^2	0.782	0.628	0.706	0.289	0.349	0.096

* < 0.1, ** <0.05, *** <0.01. Std. errors clustered at school-level. Year and grade fixed effects included. Data are from historical Office of Civil Rights records. Results robust to weighting by total students.

DIFFERENCES IN RESOURCES, POST-1975

	Has Gifted & Talented Program	Student-Teacher Ratio	Total Teachers
Former City School	-0.128**	0.427	-2.422
	(0.0553)	(0.806)	(1.845)
Constant	-0.0432	18.74***	16.65***
	(0.117)	(1.664)	(3.440)
Years Included	'76, '78, '80, '82	'76, '78, '80	'76, '78, '80
Observations	382	246	246
R^2	0.129	0.037	0.886

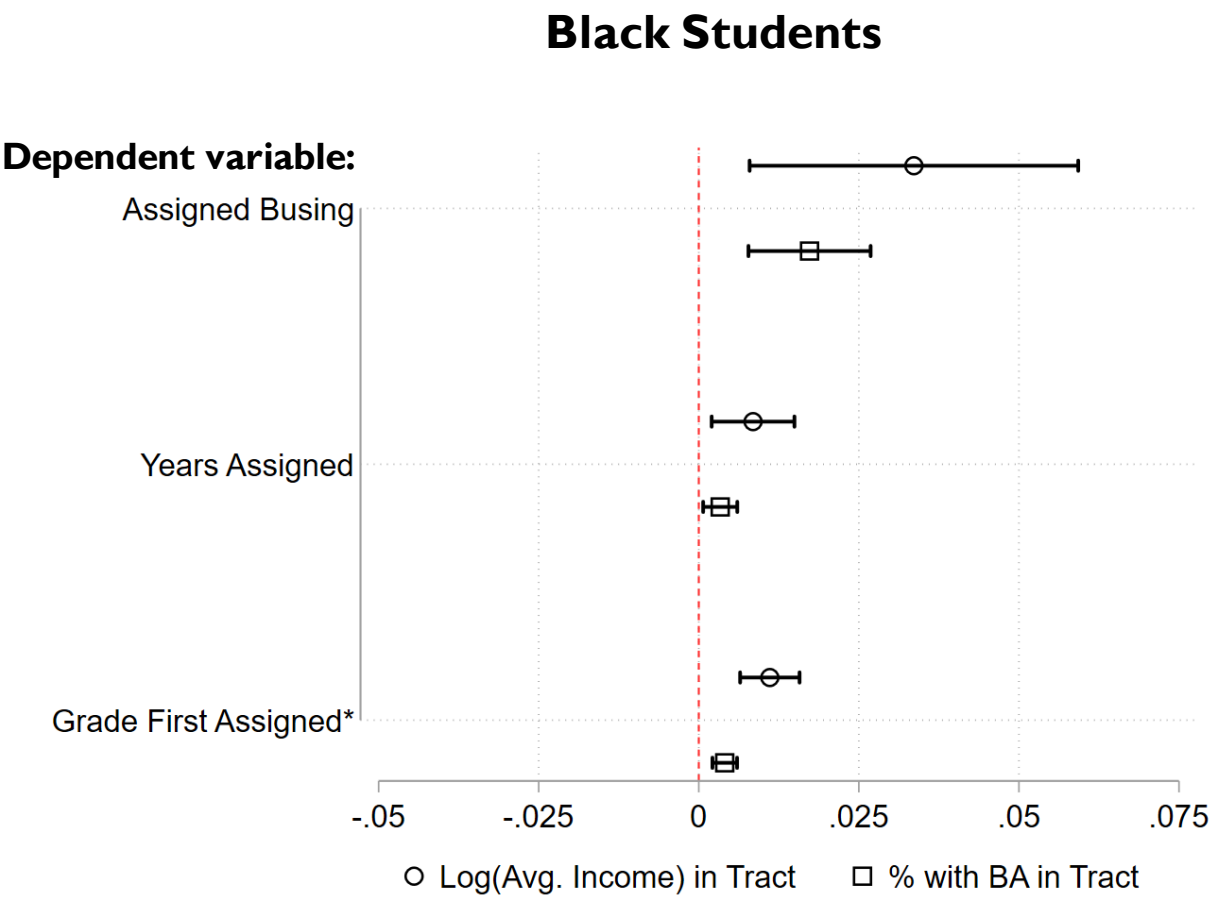
* < 0.1, ** <0.05, *** <0.01. Std. errors clustered at school-level. Year and grade fixed effects included. Data are from historical Office of Civil Rights records. Results robust to weighting by total students.

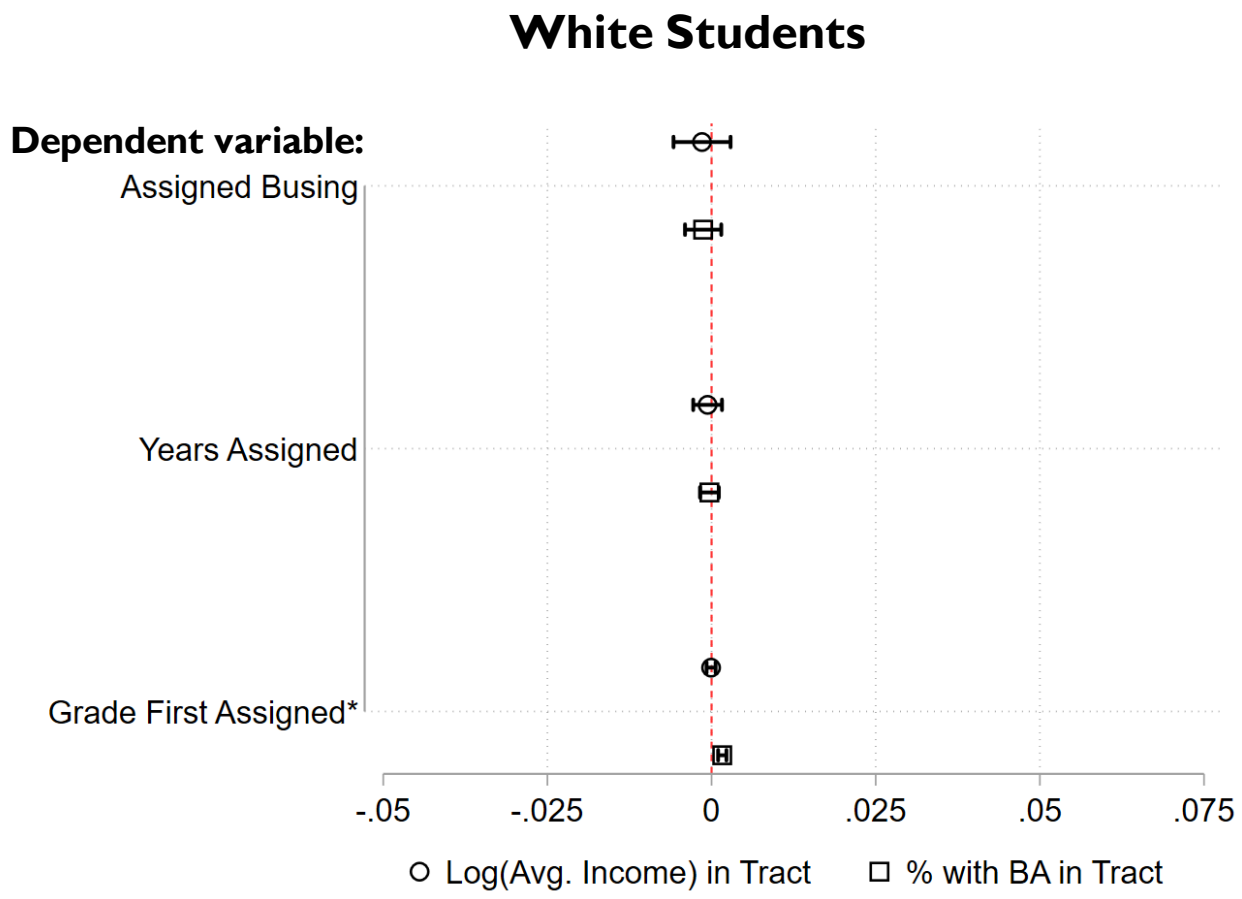
DIFFERENCES IN SCHOOL LOCATIONS, POST-1975

	Tract HS Completion Rate, 1980	Tract Below Poverty, 1980	Tract Em-ployment Rate, 1980	Tract Median Household Income, 1980	Percent of Buildings in Tract with No AC, 1980	Percent of Buildings in Tract with Room Heater, 1980	Tract Predicted PM2.5 Levels, 2001- 2005 Average	Zip Code Violent Crime per Capita, 2004	Zip Code Property Crime per Capita, 2004	Zip Code Drugs/Other Crime per Capita, 2004
Former City School	-0.154***	0.168***	-0.0801***	-9,057***	0.302***	0.157***	0.590***	0.00633***	0.0273*	0.0325***
	(0.0410)	(0.0406)	(0.0203)	(1,371)	(0.0468)	(0.0453)	(0.0518)	(0.00132)	(0.0155)	(0.00969)
Constant	0.705***	0.0889***	0.912***	22,053***	0.0995**	0.0155	15.97***	0.00316***	0.00746	0.00750
	(0.0575)	(0.0337)	(0.0246)	(1,709)	(0.0441)	(0.0320)	(0.113)	(0.00111)	(0.00910)	(0.00658)
Observations	99	99	99	99	99	99	99	99	99	99
R^2	0.153	0.385	0.316	0.547	0.309	0.256	0.386	0.415	0.135	0.335

* < 0.1, ** <0.05, *** <0.01. Std. errors clustered at school-level. Grade fixed effects included. Data are from publicly available 1980 Census (from NHGIS), CDC pollution model, and Louisville Metro Police Department. Results robust to weighting by total students.

LONG-RUN ECONOMIC EFFECT OF BUSING ASSIGNMENT





Notes: Each row plots coefficient from a separate regression. Std. errors clustered at the level of variation, race-cohort-alphabet group. Race by graduating cohort and race by alphabet group fixed effects are included in all columns.
*Grade First Assigned recoded as (13 – Grade) so that positive coefficient indicates earlier assignment is better.

Aristotle, Black | Aristotle, White

ECONOMIC EFFECTS WITH ARISTOTLE DATA, WHITE MEN

	No Edu. Beyond HS	Estimated Home Value	Est. Home Value, Including Renters	Year Home was Built	Has a Credit Card	Lives in KY	Lives in Jefferson Co.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Bused	0.0218	-0.0176	0.0010	1.4737	-0.0004	0.0044	0.0024
	(0.0172)	(0.0311)	(0.0224)	(1.5227)	(0.0181)	(0.0163)	(0.0162)
Fixed Effects:							
Cohort	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alphabet Group	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean of Dep. Var.	0.430	0.442	0.345	1978.838	0.693	0.491	0.297
Number of Observations	2,766	3,682	4,711	1,790	5,018	5,018	5,018

Notes: Std. errors clustered at cohort-by-alphabet-group level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

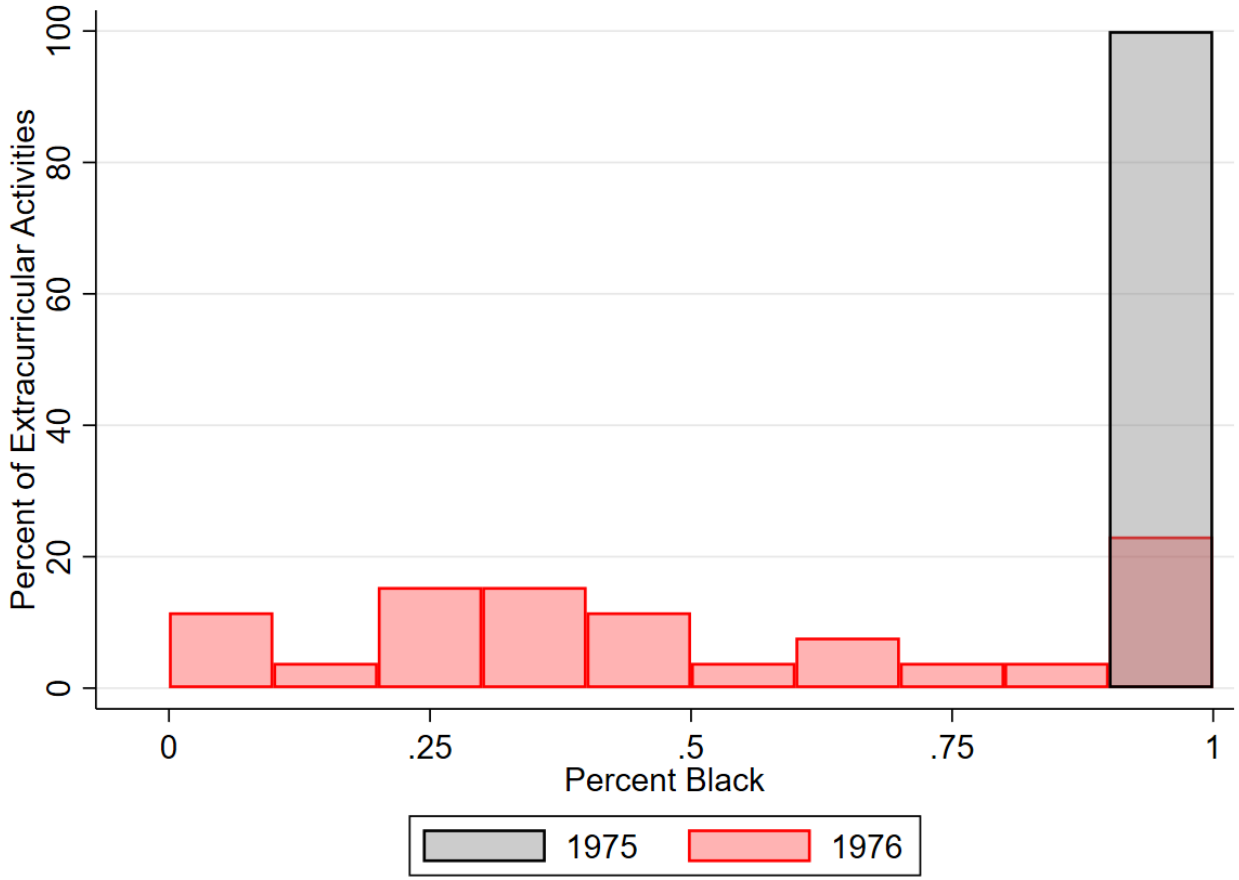
ECONOMIC EFFECTS WITH ARISTOTLE DATA, BLACK MEN

	No Edu. Beyond HS	Estimated Home Value	Est. Home Value, Including Renters	Year Home was Built	Has a Credit Card	Lives in KY	Lives in Jefferson Co.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Bused	-0.1478	0.0615	0.0144	2.0820	-0.0159	-0.1362***	-0.0743
	(0.2566)	(0.0704)	(0.0613)	(15.4333)	(0.1605)	(0.0472)	(0.0747)
Fixed Effects:							
Cohort	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alphabet Group	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean of Dep. Var.	0.481	0.246	0.158	1972.791	0.559	0.630	0.506
Number of Observations	183	240	373	86	413	413	413

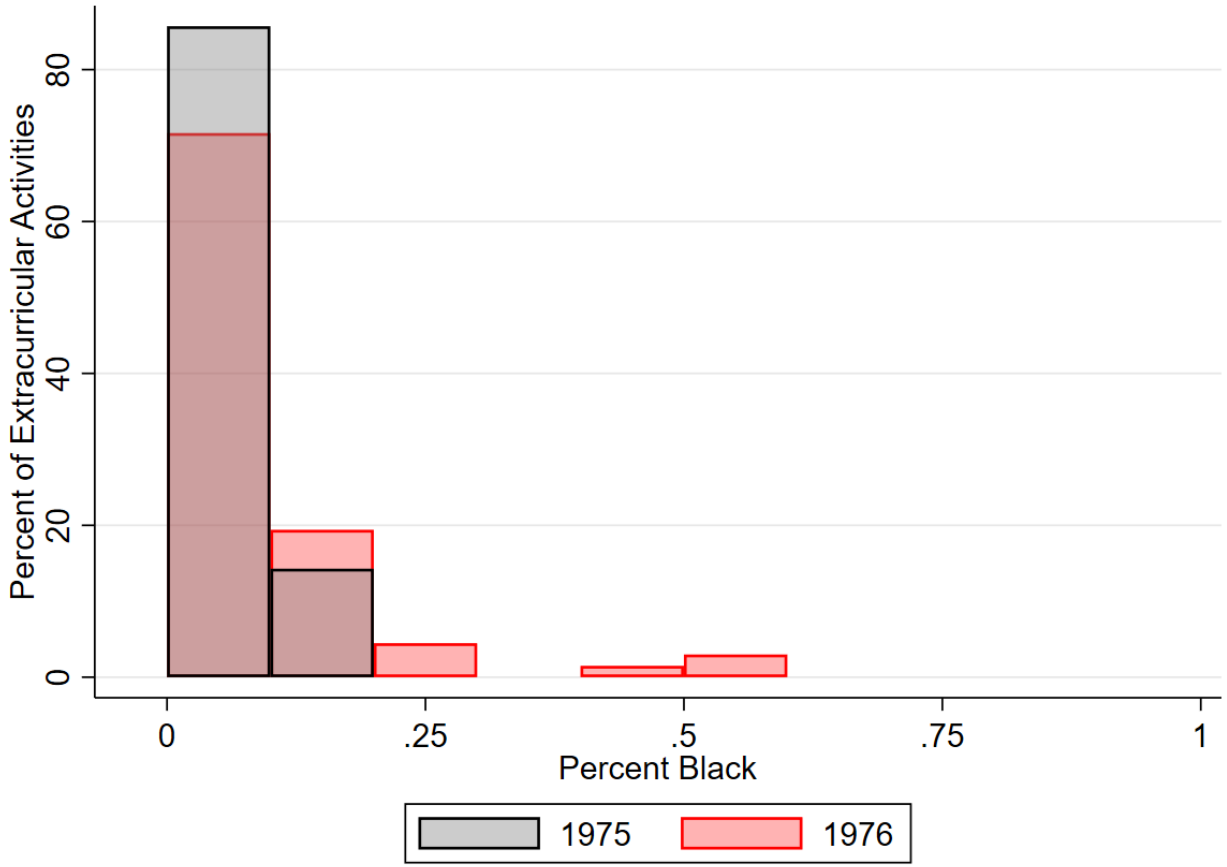
Notes: Std. errors clustered at cohort-by-alphabet-group level. * p < 0.1, ** p < 0.05, *** p < 0.01

INTEGRATION OF EXTRACURRICULARS

Central High (City)



Atherton, Ballard, Eastern (County)



DISTRIBUTION OF SURNAMES BY FIRST LETTER

Alphabet Group	Percentage of Surnames
'A', 'B', 'F', 'Q'	0.165
'G', 'H', 'L'	0.171
'C', 'P', 'R', 'X'	0.171
'M', 'O', 'T', 'U', 'V', 'Y'	0.160
'D', 'E', 'N', 'W', 'Z'	0.157
'I', 'J', 'K', 'S'	0.175

Source: US Census Bureau, "Surnames Occurring 100 or more times."

MATCHING YEARBOOKS + ARISTOTLE

- Does this filter make sense?
  - Aristotle only yields one match → 46% live in KY, 31% live in Jefferson County.
  - Aristotle yields multiple matches → 20% live in KY, 11% live in Jefferson County.
  - Aristotle yields multiple matches + we filter to a unique match → 52% in KY, 29% in Jefferson County
  - Main results are robust across match type: (i) one match vs. (ii) multiple matches but filtered to one.

- Do these migration rates make sense?
  - ~62% of men born in KY and aged 40-50 still live in KY as of 2000 (source: public Census data).
  - Top 10 other states in our sample are in the top 11 other states for 40-50 yr. old men born in KY.
  - We have relatively more migration to IN and far away states (TX, FL, CA); relatively less to TN and OH.

MAIN RESULTS ROBUST TO MATCH TYPE

Truly Unique Matches

	Registered Democrat		Registered Republican	
	(1)	(2)	(3)	(4)
Bused	0.0449***	0.0600***	-0.0198	-0.0329
	(0.0135)	(0.0195)	(0.0205)	(0.0259)
Fixed Effects:				
Cohort	Yes	Yes	Yes	Yes
Alphabet Group	Yes	Yes	Yes	Yes
State	Yes	No	Yes	No
Mean of Dep. Var.	0.277	0.382	0.348	0.478
Sample	All States	Affiliation States	All States	Affiliation States
Number of Observations	2,466	1,789	2,466	1,789

Filtered Unique Matches

	Registered Democrat		Registered Republican	
	(1)	(2)	(3)	(4)
Bused	0.0448	0.0638*	-0.0400*	-0.0499
	(0.0269)	(0.0372)	(0.0224)	(0.0303)
Fixed Effects:				
Cohort	Yes	Yes	Yes	Yes
Alphabet Group	Yes	Yes	Yes	Yes
State	Yes	No	Yes	No
Mean of Dep. Var.	0.316	0.428	0.327	0.443
Sample	All States	Affiliation States	All States	Affiliation States
Number of Observations	2,552	1,881	2,552	1,881

Notes: Std. errors clustered at cohort-by-alphabet-group level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

EFFECT OF BUSING ON PR(MARRIAGE) FOR MEN

	Married	
	(1)	(2)
Bused	-0.0243	-0.0256*
	(0.0149)	(0.0142)
Fixed Effects:		
Cohort	Yes	Yes
Alphabet Group	Yes	Yes
State	No	Yes
Mean of Dep. Var.	0.691	0.691
Number of Observations	4,883	4,883

Notes: Std. errors clustered at cohort-by-alphabet-group level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

PARTY REGISTRATION RESULTS INCLUDING SINGLE WOMEN

	Registered Democrat		Registered Republican	
	(1)	(2)	(3)	(4)
Bused	0.0473**	0.0626**	-0.0383**	-0.0501**
	(0.0177)	(0.0248)	(0.0173)	(0.0240)
Bused x Single Woman	-0.0324	-0.0385	0.0283	0.0332
	(0.0249)	(0.0331)	(0.0520)	(0.0756)
Combined Effect: Bused + Bused x Single Woman	0.0149	0.0242	-0.0100	-0.0169
	(0.0205)	(0.0291)	(0.0419)	(0.0620)
Fixed Effects:				
Cohort	Yes	Yes	Yes	Yes
Alphabet Group	Yes	Yes	Yes	Yes
State	Yes	No	Yes	No
Mean of Dep. Var.	0.309	0.434	0.299	0.420
Sample	All States	Affiliation States	All States	Affiliation States
Number of Observations	6,788	4,827	6,788	4,827

Notes: Std. errors clustered at cohort-by-alphabet-group level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

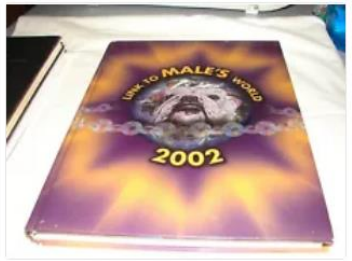
PARTY REGISTRATION RESULTS FOR BLACK MEN

	Registered Democrat		Registered Republican	
	(1)	(2)	(3)	(4)
Bused	-0.0429	-0.0718	-0.0164	0.0183
	(0.1494)	(0.1443)	(0.0992)	(0.0989)
Fixed Effects:				
Cohort	Yes	Yes	Yes	Yes
Alphabet Group	Yes	Yes	Yes	Yes
State	Yes	No	Yes	No
Mean of Dep. Var.	0.642	0.773	0.133	0.157
Sample	All States	Affiliation States	All States	Affiliation States
Number of Observations	413	343	413	343

Notes: Std. errors clustered at cohort-by-alphabet-group level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

NO LUCK ON EBAY...

3 results for **louisville male yea...** Save this search Shipping to: 20009



2002 Male High School Louisville Kentucky KY Aerie Yearbook

Pre-Owned

$118.99

or Best Offer

+$12.75 shipping

YEARBOOK: 1942 MALE HIGH SCHOOL. LOUISVILLE, KENTUCKY. WW2 ERA

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THE 1941 BULLDOG LOUISVILLE MALE HIGH SCHOOL YEARBOOK KENTUCKY HB COND: GOOD

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$48.99 Top Rated Plus

2 results for **louisville shawnee...** Save this search Shipping to: 20009

1954 Shawnee High School Yearbook Annual Louisville Kentucky KY

Pre-Owned

$26.00

Buy It Now

+$4.00 shipping

1953 Shawnee High School Yearbook Annual Louisville Kentucky KY

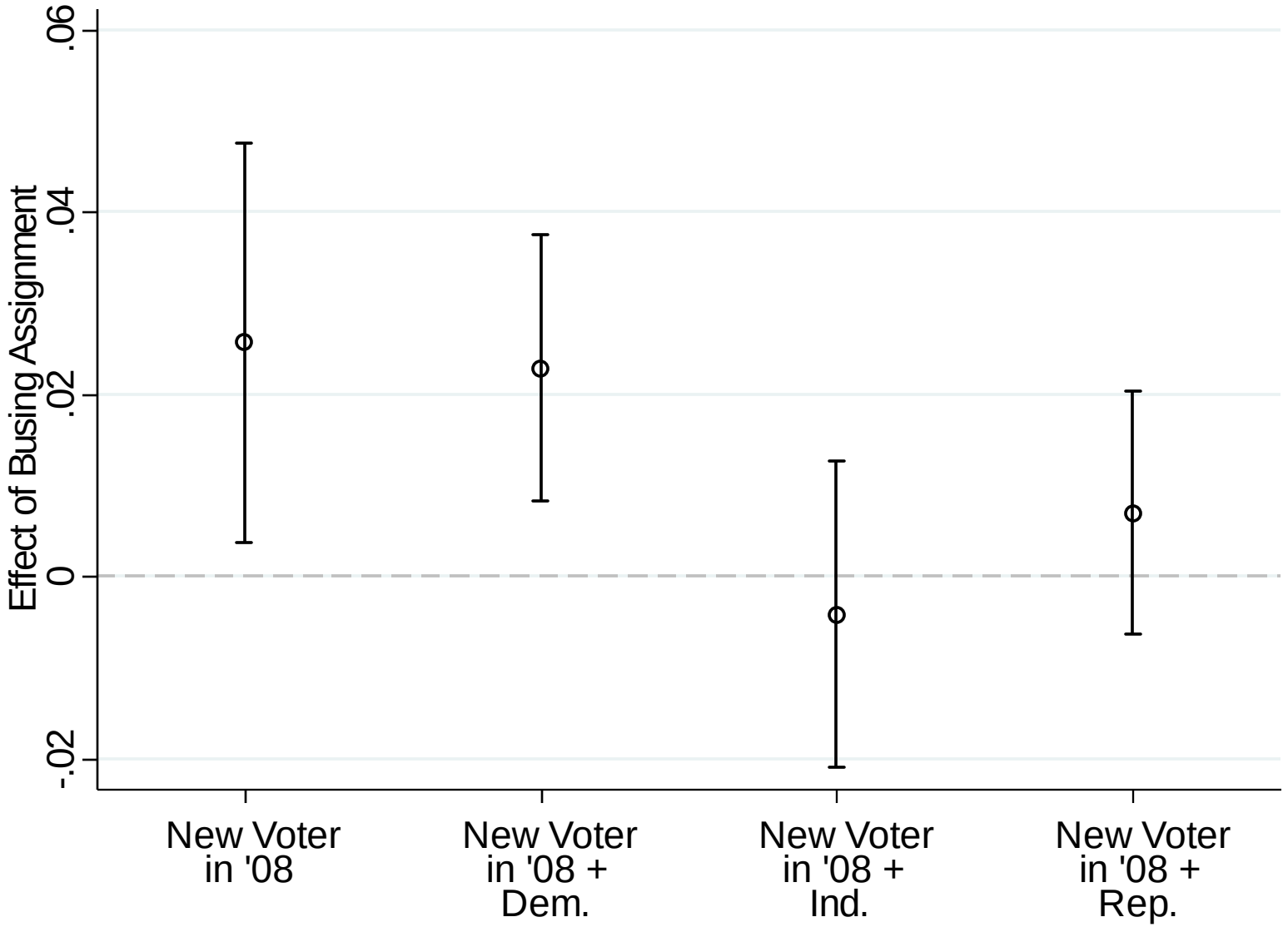
Pre-Owned

$26.00

Buy It Now

+$4.00 shipping

TURNOUT WHEN OBAMA IS FIRST ON THE BALLOT

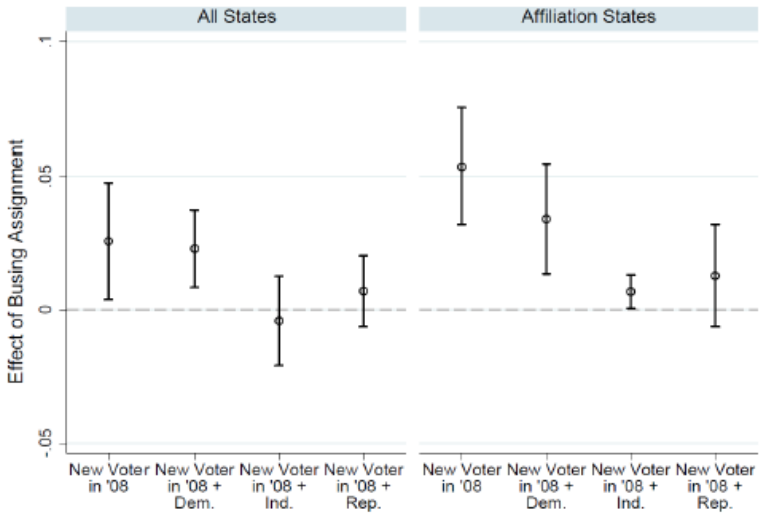


Notes: Std. errors clustered at cohort-by-alphabet-group level. Each column presents an estimate from a separate regression.

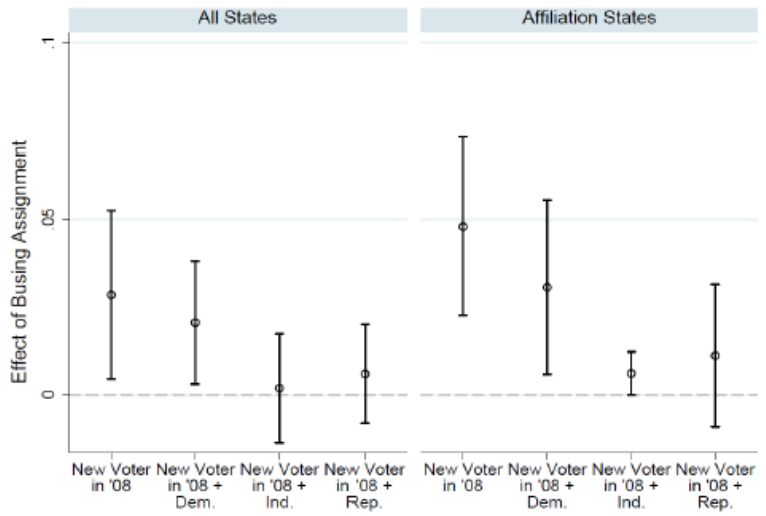
Supp. Figures

ALTERNATIVE ESTIMATES OF OBAMA TURNOUT EFFECT

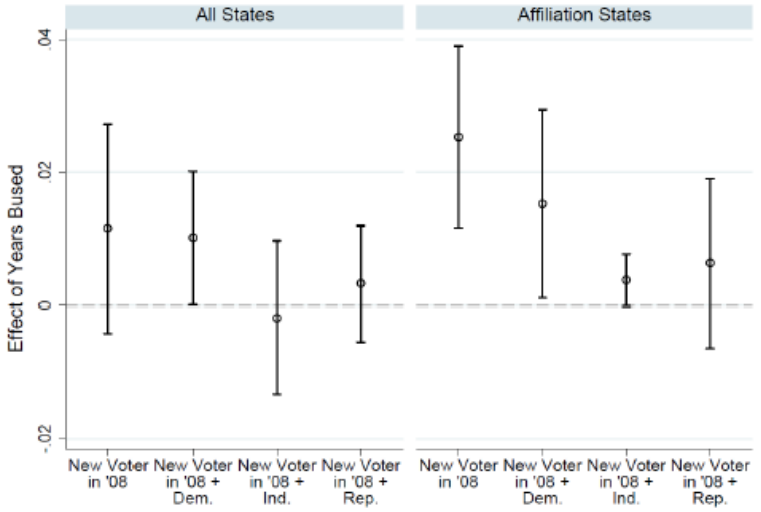
A. Bused, Excluding Primaries



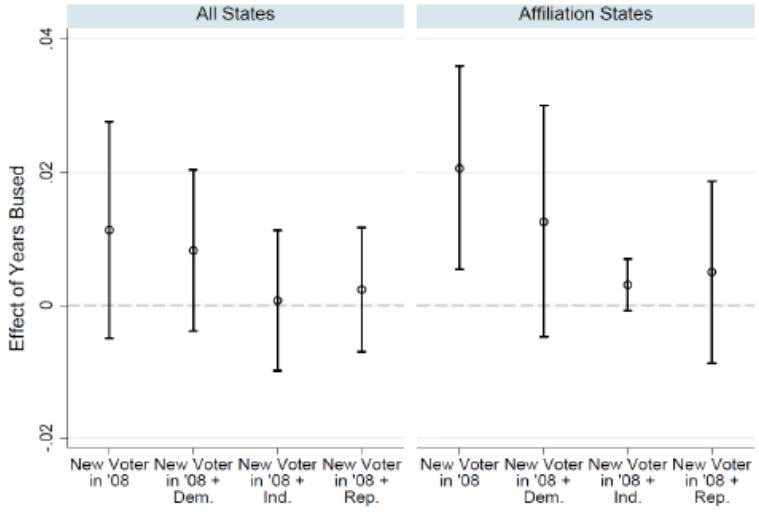
B. Bused, Including Primaries



C. Years Bused, Excluding Primaries



D. Years Bused, Including Primaries



Notes: Std. errors clustered at cohort-by-alphabet-group level. Each column presents an estimate from a separate regression.

PERSUASION RATE

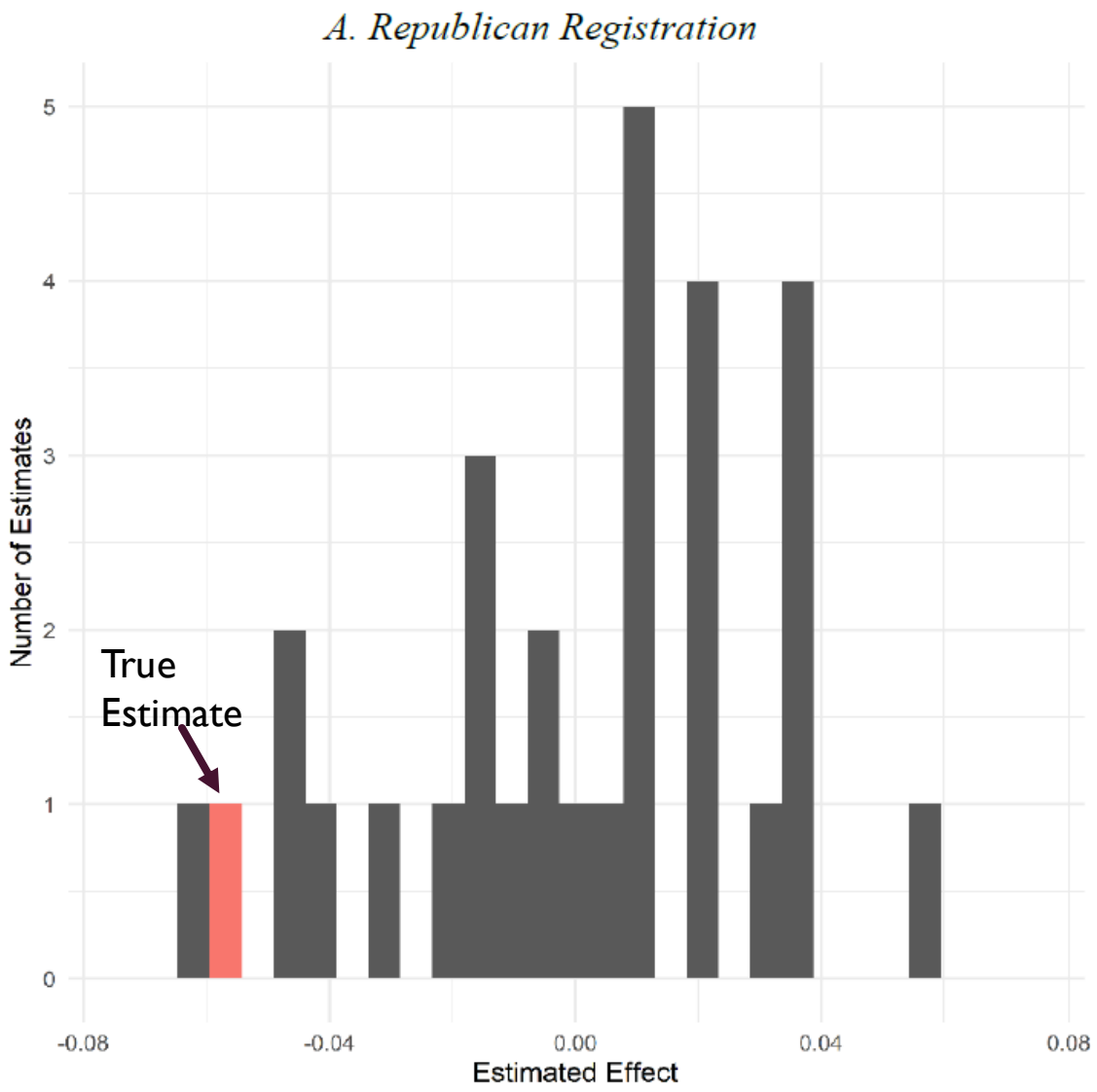
- Persuasion rate for party **p** defined as: $f_p = \frac{\hat{\beta}}{1 - \tilde{y}_p}$
- Numerator = point estimate from column (2) for Republicans or column (4) for Democrats
- Denominator = 1 – (fraction of people in party **p**)
  - We use partisanship of control group in 1976-77 and 1977-78 cohorts to estimate this.
- Implies a persuasion rate of 11.9% for Democrats and -10.1% for Republicans.
- Comparing to short-term studies, ~50-100% of those effect sizes (Dellavigna and Gentzkow 2010).

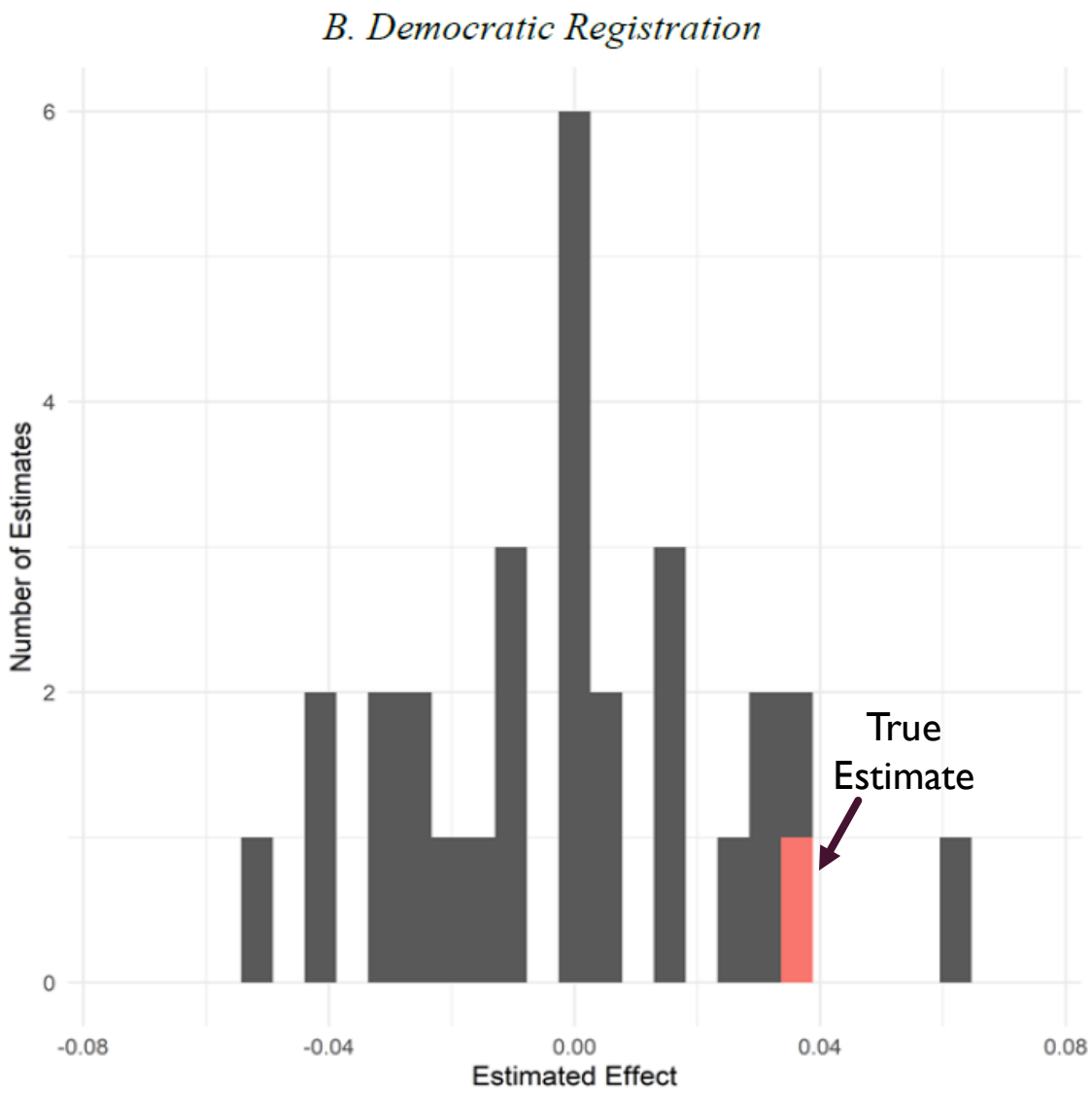
PLACEBO TEST: NO DIFFERENCES IN 1974 COHORT

	Registered Democrat		Registered Republican	
	(1)	(2)	(3)	(4)
In Treated Alphabet Group	-0.0084	-0.0124	0.0165	0.0203
	(0.0262)	(0.0320)	(0.0271)	(0.0325)
Fixed Effects:				
Cohort	Yes	Yes	Yes	Yes
Alphabet Group	Yes	Yes	Yes	Yes
Mean of Dep. Var.	0.312	0.414	0.355	0.470
Sample	All States	Affiliation States	All States	Affiliation States
Number of Observations	1,390	1,049	1,390	1,049

Notes: Std. errors clustered at cohort-by-alphabet-group level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

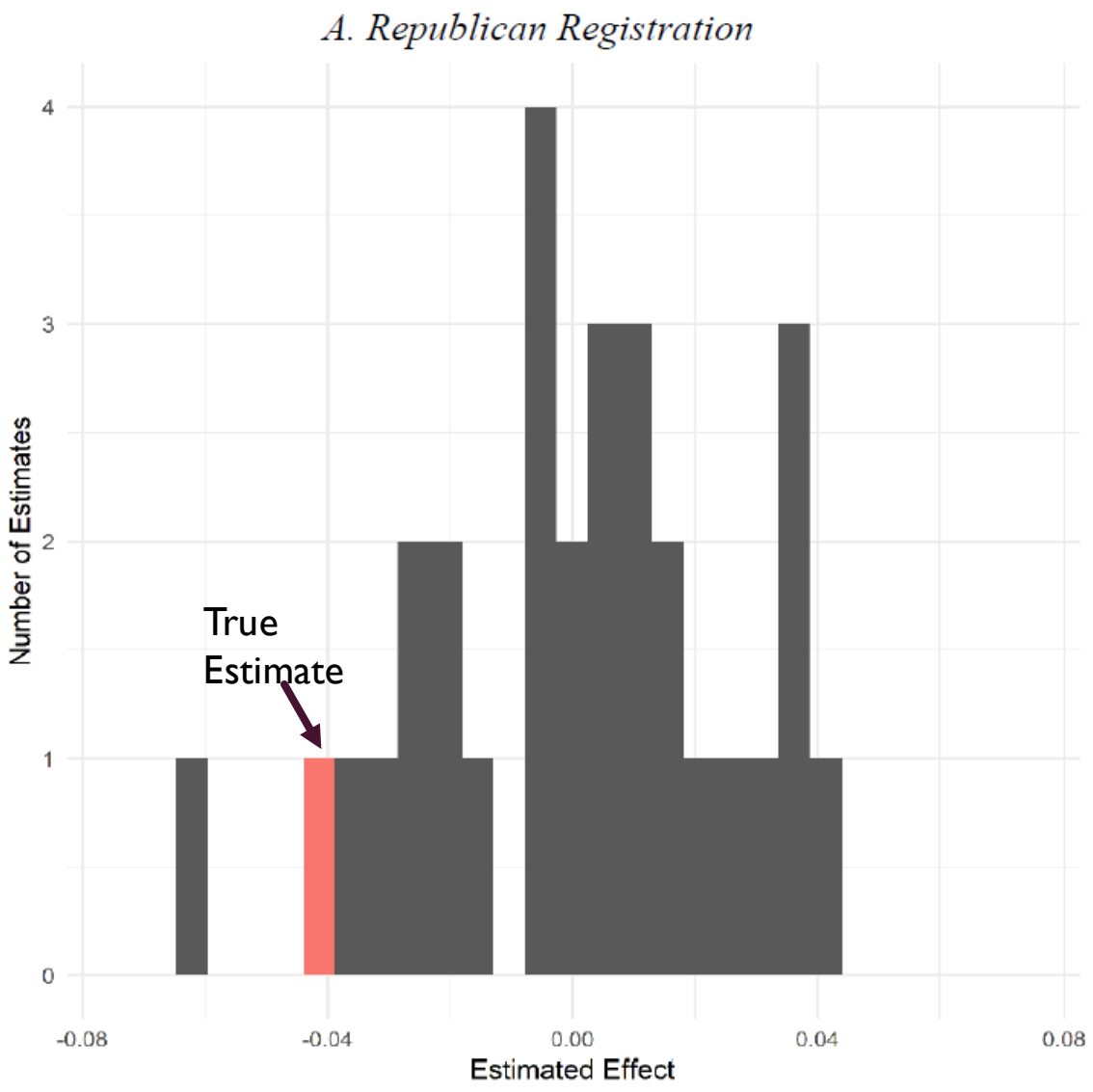
MAIN EFFECTS W/ RANDOMIZATION INFERENCE, ALL STATES

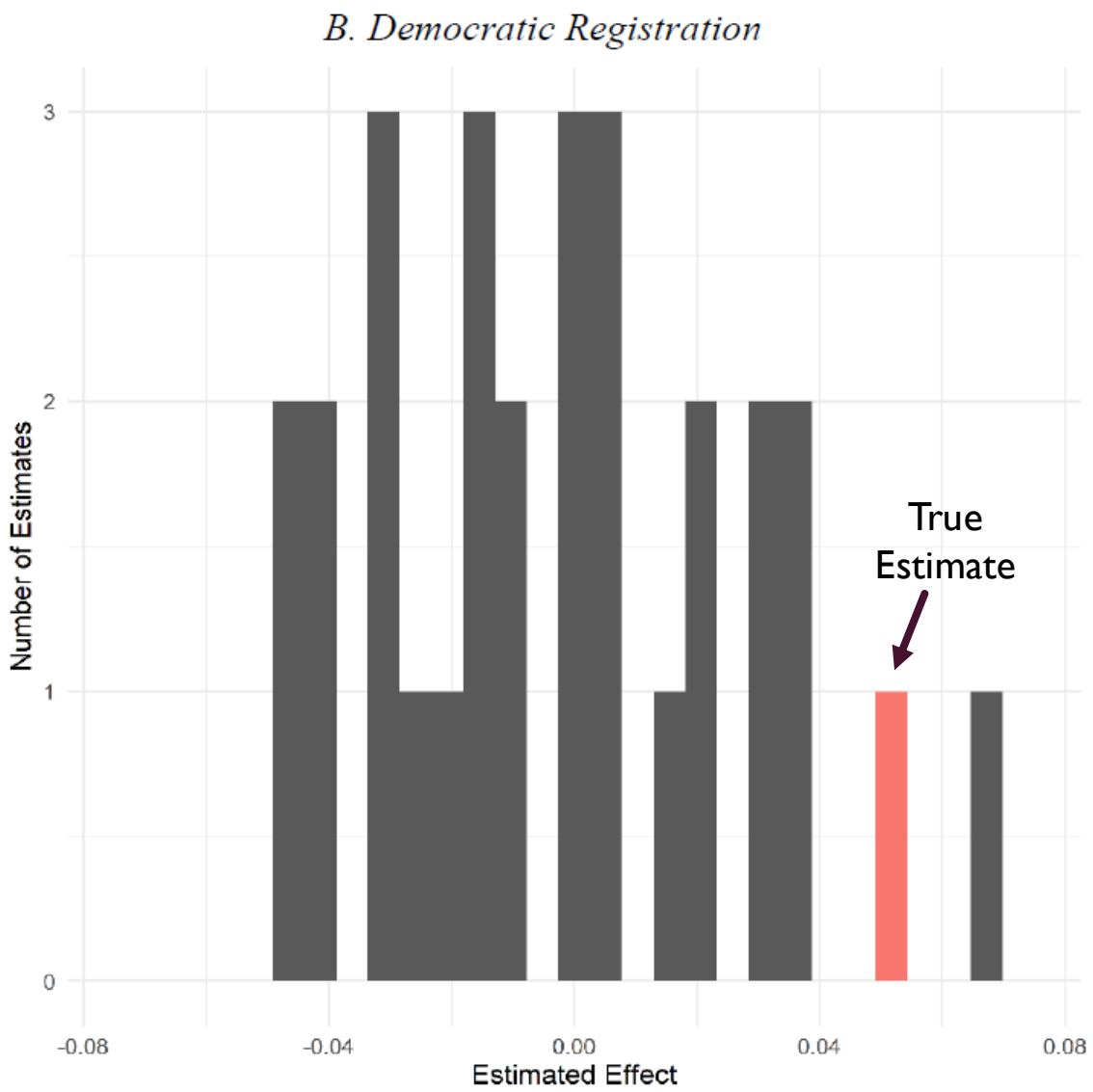




w/ State FEs

MAIN EFFECTS W/ RAND. INFERENCE, ALL STATES + STATE FE





EFFECT OF BUSING ASSIGNMENT ON POLITICAL DONATIONS